

Alberta Doctors' Digest

Letter to ADD re: A matter of life and death

The recent *Alberta Doctors' Digest* story "A matter of life and death" describes how the Ontario court upheld the medical diagnosis of brain death as constituting death, because "it falls to the medical profession to establish the medical guidelines or practice to determine death." The article writes that "reliance on this religiously founded definition of death, however, challenges the criteria for the definition of brain death frequently applied by physicians in hospitals across Canada."

The court stated that it did not engage with "philosophical considerations regarding the recognition of physiological functioning of the body as life," that primacy was given to "a uniform definition, based on medical and secular criteria," and that "she is not a person." The article concludes that "two clinically valid definitions of death persist." Here I argue that these statements are confused, and warrant clarification.

First, biological death of the human organism is the "medical and secular" concept (definition) of death. Living organisms maintain homeostasis, the ability to utilize external energy (metabolism) to maintain a highly organized internal environment (extracellular fluid) fluctuating within acceptable limits (a necessary condition for all organismic function). Homeostasis is the fight against entropy, which, by the second law of thermodynamics, would otherwise result in chemical and thermal equilibrium with the external environment.

Biological death occurs when there is loss of this integrative unity of the organism as a whole, i.e., loss of the integrated functioning of subsystems so as to maintain internal homeostasis and resistance of entropy for the organism. This is the biological concept (definition) of death, based on science (physiology, biology and physics), and not on philosophy.

It has been shown beyond any reasonable doubt that, by this definition, the brain dead organism is biologically alive, maintaining homeostasis. That is why the article made the mistake of claiming that medical treatments "are provided to brain dead individuals on life support;" if they are on life support, there is life to support.

Second, it does not make sense to say "the *criteria* for the *definition* of brain death," nor that there are "two clinically valid *definitions* of death." The medical definition of death is, as described above, the irreversible loss of integrative unity of the organism as a whole. The brain death hypothesis was that the criterion of brain death was necessary and sufficient to meet this definition of death. That is, there are said to be two valid criteria for death, either of which is the irreversible loss of integrative unity of the organism as a whole. These two criteria are brain death and cardiocirculatory death. The only problem is that it is now known that the criterion of brain death is not perfectly correlated with the irreversible loss of integration of the organism as a whole.

Third, that brain death may be death of the person is based on "philosophical considerations." This is not a scientific, medical, or biological theory. This is based on the (still unsettled) philosophical argument that the person is not the same as the biological organism, and thus that there are two forms of death: death of the biological

organism and death of the person. Brain death may be sufficient for death of the person, so that after brain death there remains behind the living remains as a biological organism. But if this is so, then the person in permanent vegetative state also is dead, and has also left behind his breathing living remains as a living biological organism. In addition, on this argument, the fetus is not a live person and thus abortion does not kill one of 'us' and does not violate the rights of any person. These are the costs of the philosophical concept of death of the person.

What these points show is that both medical and legal experts are confused regarding what is being debated when it comes to brain death. The science shows that in brain death the human organism is still alive. Philosophy suggests that in brain death the human person may have died. This is a contested philosophical argument, and reasonable people can and do disagree.

The article is correct to say that whether to maintain a body post brain death brings up the policy issues of financial strain on the health care system, allocation of finite medical resources, and impact on organ donation. The brain dead cannot experience any harm, and maintenance on life support does not further their interests. I believe that we should not maintain the living organism in brain death; however, this is different from saying that the patient is already dead. They are not.

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